## (19) World Intellectual Property Organization International Bureau



## 

# (43) International Publication Date 12 January 2006 (12.01.2006)

# (10) International Publication Number WO 2006/004300 A1

(51) International Patent Classification7:

H04B 7/26

(21) International Application Number:

PCT/KR2005/000958

(22) International Filing Date: 31 March 2005 (31.03.2005)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) **Priority Data:**10-2004-0021964 31 March 2004 (31.03.2004) KR
10-2004-0022947 2 April 2004 (02.04.2004) KR

(71) Applicant (for all designated States except US): SK TELECOM CO., LTD. [KR/KR]; 99, Seorin-dong, Jongno-gu, Seoul 110-110 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KIM, Young-Lak [KR/KR]; 104-1306, Sinil Apt, Eonnam-r, Guseong-eup, Yongin-si, Gyeonggi-do 449-943 (KR). SHIN, Sung-Ho [KR/KR]; 103-2501, Taeyeong Apt., Daeheung-dong,

Mapo-gu, Seoul 121-764 (KR). IHM, Jong-Tae [KR/KR]; 304-502, Dongshin Apt., Imae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do 463-797 (KR).

- (74) Agent: NAM, Sang-Sun; 9th Fl., Maekyung Media Center, 30, 1-ga, Pil-dong, Jung-gu, Seoul 100-728 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

[Continued on next page]

(54) Title: A METHOD FOR HAND-OVER BETWEEN ASYNCHRONOUS COMMUNICATION NETWORK AND SYNCHRONOUS COMMUNICATION NETWORK OF MULTI MODE MULTI BAND MOBILE COMMUNICATION TERMINAL AND MOBILE COMMUNICATION TERMINAL THEREFOR

SYNCHRONOUS MOBILE ASYNCHRONOUS MOBILE COMMUNICATION SYSTEM ASYNCHRONOUS MODEM SYNCHRONOUS MODEM COMMUNICATION SYSTEM CALL TRANSMISSION(S101) REQUESTING MODEM OPERATION (\$103) INITIALIZING MODEM, PREPARING TO SEARCH FOR PILOT CHANNEL (S105) HAND-OVER TRIGGERING TRANSFERRING TO (S109) LOW POWER MODE (\$107) REQUESTING TRANSFER TO IDLE STATE (S111) REQUESTING HAND-OVER (\$113) SEARCHING FOR A PILOT CHANNEL OF SYNCHRONOUS NETWORK(\$115) SEARCHLING FOR SYNCHRONOUS CHANNEL (S117) TRANSFERRING TO IDLE STATE COMMANDING HAND-OVER REQUESTING TRANSFER (S119)(\$121) TO TRAFFIC STATE(\$123) INITIALIZING FOR TRANSMISSION TO TRAFFIC STATE(\$125) TRANSMITTING A BACKWARD TRAFFIC REPORTING THE COMPLETION OF HAND-OVER(\$129) ASYNCHRONOUS MODEM OFF. VOCODER CONVEÁSION(S131 MAINTAINING CALL CONNECTION

(57) Abstract: Disclosed are a method for hand-over between an asynchronous communication network and a synchronous communication network of multi mode multi band mobile communication terminal and mobile communication terminal therefor to improve the hand-over connecting rate between an asynchronous communication network and a synchronous communication network in a mixed mobile communication system of an asynchronous network and a synchronous network.

### WO 2006/004300 A1



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.